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ABSTRACT

This paper addresses the educational implications of the increasing number of students at risk and reviews the variety of at-risk conditions and circumstances and their indicators. The following topics are discussed: (1) the characteristics and behaviors that define and identify youth at risk; (2) social correlates of educational risk; (3) indicators of at-risk students based on research and experienced practice; (4) intervention strategies for primary grade students; and (5) intervention strategies for adolescents at risk. A bibliography with 84 references is included. (JS)

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STUDENTS AT RISK: A REVIEW OF CONDITIONS, CIRCUMSTANCES, INDICATORS, AND EDUCATIONAL IMPLICATIONS

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INTRODUCTION

The nation is experiencing a major renaissance in education. The flurry of educational reform has been stimulated by actions of national commissions, governors, legislators, and state and local educational agencies. This educational "reform" movement is generating new and higher standards for students at all levels and higher expectations for educational professionals. There is evidence that this activity has the support of the general public and most educational stakeholders. The primary goal is the improvement of the quality of teaching and learning in the schools of the United States and to increase the nation's competitive edge in the world's market place.

Simultaneously, there is growing recognition that this march toward school reform has sparked concern that routes to achieving excellence may bypass students for whom traditional modes of education have often failed. Among these students are those who live in urban poverty and rural isolation, those who are culturally and linguistically different, who are low academic achievers and experience high dropout rates.

There are risks for these students and their families in the society at large and the risks to their educational attainment and entry into productive lives of employment are increasing. Henry M. Levin in Educational Reform for Disadvantaged Students: An Emerging Crisis indicates that at least 30 percent of elementary and secondary school students in the United States today are educationally at risk and the proportion will rise rapidly in the future.

Frank Newman and Kent Maguire of the Education Commission of the States describe the challenges that educators face in the following statements from the article, "Viewpoint: Schools Must Assume Leadership in Meeting the Needs of High-Risk Students", in the September, 1986 issue of The School Administrator.

> 1. "Little good data about the at-risk population exists. School people know who is at risk, but few incentives exist for documenting the size and characteristics of this population. Documenting the magnitude of a school's dropout problem, for

example, means that state aid for schools might be reduced. We must work to change the incentive structure to encourage the collection of more accurate and more useful statistics about the problem.

2. Too little is known about working solutions. Dale Mann of Teacher's College, Columbia University, is right when he says that 'virtually everything is being done; but as he also says, at the delivery level we cannot yet tell to whom and with what effect. Efforts to map and expand these initiatives must be expanded."

3. A serious impediment to better services for high-risk children is confusion and disagreement about what schools can and should do for disadvantaged or troubled young people. I think that concrete information about working solutions will help to clarify the roles for schools and other youth-serving organizations. However, we must also increase ways to improve collaboration between the schools and these agencies if any headway is to be made. Above all, schools must help high-risk youth and assume leadership in making collaborative efforts work."

The fact that a number of the nation's outstanding organizations are launching major efforts to address these issues is encouraging. Among these are the National Governors' Association, the Association of State Boards of Education, The Education Commission of the States, The Institute for Educational Leadership, and a collaboration between and within nine regional educational laboratories serving all 50 states. In the seven states served by the North Central Regional Educational Laboratory (NCREL), there are a number of efforts in progress or in early stages of planning to examine policies and programs and/or expand the coordination of efforts to provide services to at-risk students. In the state of Wisconsin legislation was enacted in 1985 for the identification of children at risk at local district levels, the design of local plans of intervention, and reporting, monitoring and evaluation of district programs.

These efforts are likely to increase public awareness and a better understanding of the conditions and circumstances that are imbedded in the problems of

The primary purpose of this paper is to address educational implications of the increasing number of students at risk. However, in an effort to address the magnitude of problems affecting youth today and the difficulties with definition, the variety of at-risk conditions and circumstances are also summarized and the indicators of educational risk are reviewed.

This paper will:

- examine the characteristics and behaviors that define and identify youth at risk;
- address social correlates of educational risk;
- identify indicators of at-risk students that are contributed by the body of relevant research and experienced practice; and
- suggest intervention strategies that have a research and development base.

AT-RISK YOUTH: WHO ARE THEY?

It is generally acknowledged that a growing proportion of young people are at risk of not making successful transition to productive lives. There are a number of categories of "risk" that can be found in national, state and local reports on the topic. While a number of these categories represent social phenomenon that educators cannot address alone, it seems valuable to identify the universe of conditions of youth that create the most serious at-risk circumstances.

School Dropouts

In a 1986 report to members of Congress, the United States Government Accounting Office (GAO) indicated that in October, 1985, there were approximately 4.3 million dropouts age 16-24, of whom about 3.5 million were white, about 700,000 were black, and about 100,000 were from other racial groups. Fourteen percent of youth age 18-19 were dropouts----16% of young men and 12% of young women. The source of data used for this report is the Current Population Survey sponsored by the Bureau of Labor Statistics. Data from the longitudinal study, High School and Beyond, sponsored by the Department of Education indicates that 14% of public high school sophomores in spring, 1980 dropped out before their expected graduation in 1982. The data show that 13% were white youth, 17% black, and 19% Hispanic. The GAO Report also points out that although the high school completion rate for all groups has increased significantly in the past 20 years, the proportions of dropouts, especially poor youth, blacks and Hispanics, is an issue warranting the attention of the education community.

Low Performing Students

The impact of poor school performance has far reaching implications for students, and even when poor academic performance is a single factor affecting youth, it represents a very high risk factor. The fact is, that poor academic performance is typically accompanied by other risk factors. Poor grades is the most frequently reported reason for dropping out of school. Michael Borus and Susan Carpenter conducted a study of the correlates of dropping out of school and found that among the most important concerns was being two or more years behind grade

level. While poor school performance is at the center of concern about school dropouts, it is a serious high risk factor for students who are currently in schools and for those who complete school with a history of low achievement. McDill, Natriello and Pallas, in an examination of the effects of higher academic standards on potential dropouts, report that the consistent failure and frustration of low academic achievement inevitably leads to increases in absenteeism, truancy and school-related behavior problems.

It has been well documented that the low achieving phenomenon often starts in the earliest grades of schooling and increases in severity as students proceed through elementary and junior high school. It was this premise that led to the development of compensatory education programs for disadvantaged children in the middle 1960s. While there have been benefits to students who participated in these efforts, these effects have been modest. The test score gap between poor and minority students and more advantaged students remain substantial. The cumulative effects of low achievement on students clearly represent one of the serious risks to both school continuation and employment opportunities.

Young Offenders

Fifty percent of all arrests for serious crimes are of young people under 21 years of age according to the United States Crime Statistics Report, 1985. The homicide rate for non-white teens increased 16% and for whites 232% from 1950-1978. Serious and repeat teenage criminals are placed in a variety of detention facilities, many offering limited help for continuing their education or for re-entering society. Family members and teachers are frequently victims of teenage crime. Incarcerated youth, when released from penal facilities, have increasing difficulties with school and employment and are at-risk of continuing lives of crime or of being economically dependent during most of their lives.

Teen-Age Parents

According to a special report prepared by the Select Committee on Children, Youth and Families, United States House of Representatives, the number of births to teens under 20 was just under one-half million (499,038). This number accounts for almost 14% of all births in the country. Most teenage pregnancies are unintended and it is anticipated that at least one-third of

teen mothers will experience a subsequent pregnancy while still in their teens. Most teen births are to women 15 to 19 years of age. Between 1960 and 1973 the number of births to girls under 15 rose from 7,500 to 13,000. 49% of the births to the 15-17 year-old group were to unmarried teens.

Nearly every state reported a serious teenage pregnancy and parenthood problem and 26 states acknowledged that existing prevention and assistance services are inadequate to address the needs.

The incidence of increases in teen parents leads to not one but two cohorts of at-risk youth. For both the teens and their children, prospects for a healthy and productive life are significantly reduced. In addition, the economic implications are worth noting. The Executive Service Corps estimated that teenage pregnancy costs the citizens of Illinois $853 million each year, including Aid to Dependent Children (AFDC) payments and Medicaid costs. Michigan reported 15,319 AFDC or General Assistance cases in which the recipient was under 20 in 1985, at a total annual cost of $92,197,910. An Urban Institute Study conducted in 1975 reported that the federal government spent $8.55 billion in AFDC benefits, Medicaid and food stamps in households where the mother was a teenager when she had her first child.

As the children of teen parents enter the public schools, it is anticipated that their educational disadvantages will be severe. Parents of these children are under-educated, frequently have not had positive experiences in school, and many are not able to provide early learning experiences for their children in preschool years.

Run Away Youth

150,000 youth run away from home each year. These youth seldom enroll in school. They frequently contribute to the dropout and teen crime statistics. There is little information or data on the extent to which the young people re-enter. School continuation and employment statistics do not clearly identify this category of youth. The risks to run away youth are often life threatening.

Drug and Alcohol Abusers

The National Center for Health Statistics reports that arrests of teens for drug abuse increased 600% between 1960-1980. Arrests for drunkenness among high school seniors rose 300% during the same period. Even without statistical evidence, the perspective that drug and alcohol abuse among youth represents a national crisis is currently shared by national, state and local leaders throughout the nation. The incidence of drug and alcohol use among school age students is found in all geographical sections: urban, suburban and rural schools.

Youth Unemployment:

Labor market opportunities are poor for high school dropouts. Low educational attainment also contributes to the failure of youth to compete in the job market. The population survey data for October 1985 shows that 1 in 4 dropouts age 16-24 were unemployed, compared to 1 in 10 high school graduates who were not enrolled in school. In addition, large proportions of dropouts do not even seek work. It is estimated that approximately 3 million 14-16 year-olds are looking for work and that another 400,000 have stopped looking. The employment prospective for black dropouts is more bleak than for whites. In 1972, the unemployment rate for black teenagers was 35%. It rose to 43% in 1986. However, it should be recognized that the disparity in labor force participation and unemployment between all black and white youth (dropouts and graduates) is greater now than in the past.

The significance of the large pool of under-educated, unemployed youth is presented in The Social Costs of Dropping Out of School, a paper prepared by James A. Catterall, University of California. Catterall estimates that the lifetime earnings loss of a single male student failing to complete high school (in a large urban school district in California) is $187,000; for a female $122,000. In a high school with a 40% dropout rate, $3.2 billion represents the lost lifetime earnings of the class in which the dropouts failed to graduate. Catterall also presents additional costs to society including welfare payments, cost of crime, unemployment services, and health services.

One can speculate that the effect of low educational attainment among those who do complete high school has significant economic and psychological effects

also. These young adults are in the pool of functionally illiterate adults, of whom there are millions.

Neglected and Abused Children

More than 900,000 cases of child abuse and neglect were reported in 1982 according to a report released by The Childrens' Defense Fund in Washington, D.C. This represents an increase of 45% over the previous five years. Children of families that live in poverty circumstances are over-represented among these cases of abuse. Neglect and abuse are coexisting conditions with other at-risk factors.

Teen Suicide

The National Center for Health Statistics reports a steady increase in suicide rates of youth between the ages of 10 and 19. In 1984, there were 29,216 teen suicides; 20,882 white males, 6,120 white females, 1,760 black males, 328 black females, and 2,284 from all other groups. While these rates may not seem alarming when compared to the size of the adolescent population, Sudak, Ford and Rushforth of the Case Western Reserve University, School of Medicine, report that these statistics represent a two-three-fold increase in suicide rates for these groups over the past 25 years. To the extent that causes can be determined, it appears that adolescent depression is a major factor. A number of state agencies and school districts are providing information and awareness sessions for counselors, teachers and parents on behaviors that may be evident in suicide-prone adolescents.

The conditions of the nation's children that are cited above represent a litany of circumstances that accompany children to school. While these are not problems that can be solved by the schools alone, they help to inform educators about at-risk conditions that affect the lives of children they are charged with educating.

CORRELATES OF EDUCATIONAL RISK

David Bills, Sociologist at the University of Iowa and a collaborator with the effort of the North Central Regional Educational Laboratory (NCREL) to develop a midwest regional data base on at-risk youth, has prepared an excellent characterization of the susceptibility of children who are at risk of falling below the expected level of educational attainment. This section of the paper presents excerpts from Students Who Are Educationally At Risk by Bills.

To speak of children at risk is fundamentally to speak of families at risk. A focus on families directs attention to the ascribed characteristics of children that can impede their educational progress. Several of these are identified below. Many of these features of families will be highly correlated.

Family Structure and Poverty

A clear and disturbing trend in American society is that the poverty population is increasingly composed of children. Our financial commitment to children in poverty has actually declined over the past decade. There are more poor children now than there was a decade ago, and a high proportion of the poor are children. Part of this stems from what has been called the "feminization of poverty." The increase in families headed by women has been staggering. Such families are, of course, disproportionately likely to be poor. There is doubt that traditional programs of job training and placement can do much to alleviate the economic condition of these families.

Race and Ethnicity

To a remarkable degree, Americans seem to believe that the "race problem" has been solved, that our laws and institutions have been transformed enough that any remaining racial achievement differentials can only be attributed to motivational shortcomings or differences in ability. Indeed, some of the long-term trends are encouraging. Black college graduates now attain jobs and incomes comparable to those of white graduates. While only 1.3% of Blacks had completed college in 1940, by 1982, 12.4% had done so (Digest of Educational Statistics, 1983-84, Table 8).

At the same time, it is too easy to become complacent about our successes. A disproportionate part of minority enrollment in higher education is in less prestigious junior and community colleges, and there is evidence that the rates of continuation from high school to college among minorities are actually declining. Black family income has not increased at all relative to White family income, and trends in residential and school segregation have shown, at best, inconsistent progress.

If minority access to and participation in higher education is in fact declining, this is a serious and troubling trend. It is not, however, necessarily the most important source of economic differences. Both scholarly research (particularly William J. Wilson's The Declining Significance of Race) and popular accounts (such as Ken Auletta's The Underclass) indicate growing economic divergence within the black population, with enormous economic disparities persisting between relative unskilled and poorly educated white and black workers. Wilson's interpretation, which seems well supported by the evidence, is that the "race" problem is increasingly a "class" problem, in that an exceptionally high proportion of blacks are relegated to low-status jobs. He maintains that while Affirmative Action programs have had beneficial effects on the careers of Black professionals, they have done little to enhance the prospects of the working poor or the underclass.

Language

Closely related to the issue of ethnicity is that of language. Conflict over the use of language other than English in American schools has surfaced repeatedly throughout our history (see, for example, Schlossman's work on the teaching of German in Midwestern schools at the turn of the century). Still, there is a probably accurate sense that language diversity in American schools is currently growing at an exceptionally rapid rate, with little consensus as to appropriate policies for dealing with this. Whatever the validity of claims for the role of the school in language maintenance and the preservation of cultural traditions, children who do not acquire and develop English skills in the early years of their schooling are unambiguously at risk.

There is no single "language problem" in American schools. From a purely practical standpoint, the single largest concern, the huge influx of Spanish-speaking children into schools throughout the nation (most markedly perhaps in the Southwest, but in many Midwestern settings as well), would be the easiest to address, given the political will and a working consensus. More difficult logistically are the issues raised by the growing enrollments of students of Asian backgrounds. The backgrounds and languages of these groups are extremely diverse. They range from frequently high-achieving students of Japanese and Chinese ancestry (whose standardized math scores are typically as high above White means as their verbal scores are below them) to a variety of Indochinese refugees who have little exposure to any but their native languages (which in only some cases have a written version and literate adult community).

Residence

Different residential origins entail different educational risks. At the simplest level, we can distinguish urban, suburban, and rural (or, perhaps more accurately, non-metropolitan) schools. While the diversity within each of these categories is substantial, the distinctions capture real differences in educational prospects.

The deteriorating condition of many inner-city schools is well known. Dropout rates, particularly among minorities and in some neighborhoods, can exceed fifty percent. Problems of low achievement, vandalism, truancy, and violence are endemic.

Suburban schools, while not typically the affluent centers of creative and innovative thinking and teaching that they are sometimes portrayed to be, offer a definite contrast to urban schools. Graduates of such schools are more likely to have access to better resources, more sensible counseling, and information about further educational and employment opportunities than their urban counterparts. (Of course, the research has quite clearly established that the differential outcomes of students from affluent and poor schools have a great deal more to do with the socioeconomic backgrounds of the students than with the characteristics of their schools.)

Rural schools present a less clear picture. They apparently tend to be characterized by relatively low dropout rates and relatively high levels of performance on standardized achievement tests. Still, there are penalties, not necessarily immediately visible, to small school size and isolation. While the data are sparse, there are reasons to believe that many resources and services routinely supplied in larger schools may be missing from small rural schools. Certainly the lack of cultural diversity in many non-metropolitan communities has consequences for children's ability to function successfully in many social institutions.

Economic Displacement

Shifting industrial patterns, the changing role of the United States in the world economy, and the continuing mechanization of production over the past several years have disrupted the community and work lives of thousands of Midwestern families. Certainly economic development has always entailed a degree of economic displacement, yet both the scale of the recent trends and the inability of other sectors of the economy to absorb all (or even most) displaced workers suggests that the current problem is well out of the ordinary.

Children from families headed by dislocated workers are children at risk. These include children of former industrial workers whose firms have relocated or closed, some of whom remain unemployed and some of whom have "skidded" to low-paying service or assembly jobs. The families represent a new group of at-risk families who suffer both economically and psychologically.

Gender

While this does not precisely fit the theme of "families at risk," there is a very real sense in which female students remain an at-risk population. Research by Stephen Bossert, for instance, has demonstrated the differential treatment of girls and boys by classroom teachers, and research by Radnour has reported the continuing tendency for female college students to sort themselves (or to be sorted) into curricula leading to generally less remunerative jobs. Further, it is by now well documented that sex-based wage inequalities and occupational segregation have improved little or not at all over the past few decades. In

light of the increasing number of female-headed households, these inequities do contribute to at-risk families.

Finally, a growing literature is beginning to show disparities between boys and girls in their access to and use of computers in school. While there is some skepticism of optimistic portrayals of a "high tech" future, there is little question that the lack of exposure of female students to new technologies will impede progress towards gender equality in the school and workplace.

The concept of "at risk" is both ambiguous and imprecise. As presented above, the definition of who are at risk might well include categories of conditions that have deep roots outside of schools. It would be easy for educators to exonerate themselves from the responsibility to attack the problems of these youth. (At different points in history, this has often been the case.) However, the future of American public schools may well rest on the degree to which we marshall our resources and energies to address the educational needs of at-risk students. Ronald Edmonds addressed the issue by saying, "the schools teach the children of families they must". As public school enrollment becomes increasingly composed of children from poor and minority families, it is incumbent upon public school educators to intensify the effort.

The balance of this paper is devoted to educational indicators and potential interventions for schools. The definition of at-risk students that is most appropriate for educators is students' failure to complete high school and/or students' failure to attain knowledge and skills sufficient to continue education beyond high school or to be employed.

INDICATORS OF EDUCATIONAL RISK

Student Attendance

Poor attendance often begins at the earliest stages of schooling. Attendance patterns are often endemic to families of students. Given the evidence of the relationship of learning time to school performance, numbers of days of absence from school become a significant predictor of low performance. When the pattern of absence is established in the primary grades, it is almost certain that it will worsen as students reach pre-adolescence. Student attendance is undoubtedly the earliest and most visible indicator of potential problems in school.

School Continuation Rates

Dropout rates and school continuation rates are closely tied. A most salient and readily observable indicator of educational failure is the dropout rate. While problems of conceptualizing and measuring dropout rates are difficult for school officials, it provides a reasonable straightforward indicator of how well the educational system is doing. Clearly, given prevailing cultural and social perceptions and expectations of the meaning of a higher school diploma, a decision to leave prior to graduation can only be interpreted as a failure on the part of the school or district and the student and his/her family.

High school graduation is an important rung on the educational ladder. The next rung is the student's decision to continue to college. Among the findings of the Borus-Carpenter study cited earlier is the finding that youth are more likely to stay in school if they are enrolled in a college preparatory program and expect to attend college. While there has been a small decline in college attendance for all students, the most serious rate of decline is for black students. Joseph Marks' report, The Enrollment of Black Students in Higher Education: Can Decline be Prevented?, provides an informative overview of this issue. The fact that blacks and other minority groups have traditionally viewed college completion as an important means for economic and social mobility, this decline becomes even more distressing. School staffs, in particular those of junior and senior high schools, will need to recognize depressed aspirations about school continuance as a significant indicator requiring their attention.

Academic Performance

School performance is another early indicator of educational risk. When students in third and fourth grades are already two years behind their age counterparts, "catching up" becomes a difficult, if not insurmountable, obstacle. There are real differences in academic achievement that are rooted, to a great extent, in the factors discussed in the previous section. The cumulative effects of achievement are well documented in a number of sources. A reasonable appraisal of the magnitude and nature of achievement differences is essential for understanding and ameliorating the educational consequences of being at risk. While a number of successful interventions have been identified and are being tried, it seems obvious that efforts to improve instruction and learning for large numbers of students has failed to effect outcomes of significance.

Involvement in School Activities

Gary Natriello and Aaron Pallos, Teachers College, Columbia University, have examined the participation of school dropouts in school activities when they were attending. School dropouts participate in very few of the academic and social activities offered by the school such as academic subject-related clubs, athletics or recreational related activities. The practice of isolation from the enrichment activities of schools is another indicator for educators to examine, especially as students make the transition from elementary to secondary school levels.

Student Behavior

Anti-social behavior in school is often accompanied by other indicators of educational risk. The manner in which schools address disruptive students can often increase the likelihood that students will increase truancy, vandalism and other unacceptable behaviors. The degree to which these patterns can be altered in the early years of schooling, the more likely students will develop healthier attitudes in later school years. The involvement of families and other community agencies is often a necessity to address the problems of disruptive students. There is also a growing body of literature that indicates the relationship of student behavior to the classroom and school climate and to the implementation of rules regarding student behavior.

Attitudes Toward School

Closely aligned to student behavior are the attitudes toward school and toward the adults in the school. Negative attitudes that are demonstrated in the early years of school are often indicators of later school problems.

Need for Employment

Some of the indicators cited above may be directly related to the presence of economic difficulties in families. High school students may actually be encouraged to seek employment in order to supplement family income. The awareness of the need for employment by teens may require school schedule changes, the provision of assistance and increased school-work programs.

Nature of Family Support

When schools have repeated difficulty securing the assistance of families with student problems, it may be an indication of lack of support for the student. This is an area where premature judgments can be made. However, it is important to have supplemental services to investigate the extent of family problems that are affecting school attendance, performance and attitudes. Such knowledge indicates the need to increase the student's support within the school.

Involvement in Out-of-School Activities

One indicator cited by Natriello and Pallas was students' participation in anti-social activities outside of school. Gang membership, numbers of hours spent on the streets, use of drugs and alcohol are likely to lead to poor school performance, early school leaving, and delinquency.

Involvement with the Juvenile Justice System

A number of teen crimes are committed by students who are still in school. It is likely that students who are frequently involved in crimes and are on probation to juvenile courts are at risk of failing to stay in school or are doing poorly in school.

It seems clear that the first six of these indicators of educational risk are much closer to the business of schools than the last four. They are also the

indicators that are most alterable by schools. The work by McDill, Natriello, Hamilton, and Pallas on school organizations suggests that a number of features of schools can be modified to increase the chances that at-risk students will achieve.

The final sections of this paper present information on intervention strategies that have been found to be effective with at-risk students.

INTERVENTION STRATEGIES FOR ELEMENTARY STUDENTS

Early Intervention

Much of the current attention to the problems of at-risk students is focused on dropout prevention and the conditions affecting high school students. There is no doubt that this attention is needed if we are to decrease early school leaving. However, educators can have more faith in interventions that may stem the tide of risk conditions by addressing student needs at the earliest stages of schooling.

Further, much of the successful educational experimentation during 1960-70 provides empirical evidence that successful approaches to early childhood education can make differences in later school success for disadvantaged students.

PreSchool Experience

Preschool enrichment must begin in the home by providing parents with the knowledge and resources to help their children. Both the Southwest Educational Development Laboratory (SEDL) and the Appalachia Educational Laboratory (AEL) have done extensive work on the relationship between parent involvement and students' school achievement. According to Beth D. Sattes, Parent Involvement: A Review of the Literature, "Parental involvement has the greatest and longest lasting impact on children when parents become actively involved in learning activities with preschool children."

Strengthening the educational content of day care centers and pre-schools is also extremely important. Head Start is an important component of this strategy, but is not available to all preschool children who need it most. Educational programming for preschoolers, such as Sesame Street, needs to be expanded as a means of reaching many more preschoolers.

The early enrichment and pre-academic preparation that can be provided by expanding the availability of preschool experiences needs to be addressed by state and local decision makers for those areas where large numbers of at-risk children and their parents reside.

It seems very likely that the nature of preschool experience, including family support, must be augmented. Programs that provide opportunities for the increasing number of young parents to continue their own education while simultaneously offering parent education and parent involvement in their children's learning experience should have a high priority.

The schools will need to join community agencies in this endeavor. Churches, community centers, and girls and boys club organizations are potential collaborators. The importance of increasing learning opportunities in the homes of at-risk students must not be overlooked as a major strategy.

Early Diagnosis

Knowing the extent to which children who are entering school will require more attention and instructional acceleration (not remediation) is an important tool for educators. Diagnosing learning at this stage is fraught with problems, however. A major effort to conduct early school diagnosis for the purpose of more appropriate instructional intervention was launched by the Maryland Department of Education in 1982 with promising results. The primary message to participating teachers was that the purpose for diagnosis was not special education or remedial placement. Instead, diagnosis should inform the sequence and pacing for individual and small group instruction and practice. It is important that school officials communicate that children entering school are not expected to have learned academic content before entering. Given that many children from homes of educated parents have acquired academic learning should not become the expectation for all children. The work of Benjamin Bloom, John Carroll and a number of other researchers who have investigated early learning, clearly indicates that most academic learning needed for success in the primary grades is teachable and can be learned by most young children. The poverty conditions of their families need not interfere with their school learning if instruction is sensitive to their needs.

Restructuring Primary Education

In the context of the problems of schooling that are facing many children attending public schools today, a lot can be said about the necessity for restructuring schools. However, as one looks at the levels of achievement of second and third graders in schools serving large numbers of at-risk students, it seems imperative that examinations be conducted of the first five years of schooling. While there is no clear evidence in the literature to support the efficacy of variations in primary school structures or alternative delivery strategies, it may well be worth consideration. The evidence upon which we do rely (standardized test scores) shows that achievement levels of at-risk children are lower at the end of first grade than children who are not in this category.

Heavy emphasis must be placed upon improving learning in basic skills in an environment that is not oppressive. Compensatory education programs, while being one of the solutions recommended to address at-risk students, are delivered in ways that may actually impede learning in many schools. Young students pulled out of self contained classes for several different instructional periods during the day may simply confuse them. Further, the appropriate coordination and joint planning for teachers of compensatory classes and homeroom teachers is seldom accommodated. Teams of teachers, aides and parent volunteers working together in a single classroom may offer better learning opportunities. The carefully designed implementation of mastery learning is another strategy that offers potential success for at-risk students. A number of approaches that were intended to explicate the work of Benjamin Bloom produced only mechanistic approaches. A description of an appropriate application of mastery learning is provided in the document by Henry Levin cited earlier.

It may also be possible that all primary level teachers are not equally proficient in teaching all subjects. Traditionally we have believed that young children should have a single teacher for purposes of comfort and social development. Having highly proficient teachers of mathematics and science to work with the teacher of the self contained classroom may be another consideration for restructuring. It may be more valuable for children to be introduced to these content areas by competent specialists. Much of the failure that occurs at later stages is in the core content subjects.

It seems clear that a number of options may exist and that the creativity of teachers and school officials should be addressed to the consideration of restructuring in the primary grades.

Academic Acceleration

Earlier in this paper, the term academic acceleration was used as an alternative to the frequently used term remediation. This substitution is being used by a few researchers and practitioners for the purpose of substituting a more positive designation for the process of assisting low achieving students rather than one that has a negative connotation. A more basic reason is the fact that in order for youngsters to increase their performance, academic acceleration is actually required. The essential ingredients to accelerate academic performance are increased engagement time for students on significant academic tasks, sufficient repeated practice for mastery, careful monitoring and assessment by teachers, and recognition and praise for academic performance. These elements of instruction are well documented in the literature on effective teaching and effective schools. Low performing students also require at least as much positive interaction with teachers as do high performing students. Homework tasks need to be closely tied to daily activities and should be opportunities for further practice, not new learning.

Peer teaching and cooperative learning are approaches that have been found to work particularly well for low performing students. Both same-age and cross-age peer tutoring have worked effectively. One advantage of cross-age tutoring is that low performing students in higher grades can tutor students in lower grades and benefit from their "teaching". Robert Slavin and associates at Johns Hopkins University found that a variety of cooperative learning arrangements can augment the learning of students placed in heterogeneous groups. Social benefits have also been derived from cooperative learning arrangements. Cooperative learning enlists the mutual support of students assisting each other with assigned tasks and develops pride in the accomplishments of all members of a group.

Computer-assisted instruction can also be an aid to academic acceleration. If courseware is selected carefully students may learn basic skills at an accelerated pace. There is also the absence of demonstrations of adult impatience during periods when students are engaged with the computer. For many students who have become hostile toward adults, periods of computer-assisted instruction may alleviate these tensions.

While increasing the length of the school day may not have positive effects on the learning of at-risk students, summer sessions have been beneficial.

In combination, these approaches have the promise of accelerating the academic performance of low performing students. It is essential that adequate planning, coordination and regular evaluation accompany these approaches in order for academic acceleration to occur.

Effective Instructional Practices

All of the strategies discussed above can be subsumed under this title. Considerable evidence has accumulated on the efficacy of particular instructional strategies. Jere Brophy and Thomas Good in Looking in Classrooms, have identified teacher behaviors that facilitate or impede student learning. Berliner, Brophy, Evertson, Rosenshine, Stallings, and others have carefully documented teaching behaviors that are effective with low performing students. It is incumbent upon teachers and school officials to ensure that those behaviors that are most effective are in the repertoires of individuals who are responsible for the learning of at-risk students.

Assessment Aligned to Curricular Offerings and Measurement Instruments

Some of the most promising work on the benefits of aligning instructional objectives and practices to the texts and tests that are used in classes and school districts has been done by Patricia Milazzo at the Southwest Regional Educational Laboratory (SWRL). Aligning the curriculum accommodates teacher planning, appropriate instructional events, and the assessment of student learning. This instructional accommodation is beneficial for all students, but is critical for low performing students. The effort to align curricula must be initiated at the district or school level. However, teachers are typically

eager to participate in the process because they recognize its benefits.

Curriculum Integration

Laura Roeller, Jerry Duffy and teacher collaborators at the Institute for Research on Teaching at Michigan State University have done some of the most recent work on integrating instructional objectives and sequences to maximize the use of learning time. In elementary grades where the process skills of reading and oral and written language are the core of the curriculum, students may not receive opportunities to learn in other content areas. This is not atypical for students who are not performing well in these basic skills. By designing instructional events with primary objectives that address content areas such as social studies and science, and secondary objectives that address process skills of comprehension or other language and thinking skills, learning of both can occur simultaneously. Classroom experimentation with this approach proved to accelerate students learning and to provide enriched and meaningful experiences. This approach is particularly beneficial for students who need continued practice in the process skills, but who are tested on their knowledge of content as well.

Sustained Features of Effective Schooling

Much has been written about the characteristics of effective schools and processes used to generate installation and development. In the context of discussing organizational and classroom interventions for meeting the needs of at-risk students, it seems to be sufficient, as a reminder, to indicate that the early research efforts of Ronald Edmonds were based on examining schools that were serving poor and minority students. While the movement has generalized to schooling at large, the characteristics that were identified were found in schools that were effective with this population.

The plethora of school improvement programs that are attempting to implement the correlates of high student performance often are not sustained for sufficient periods of time. Project RISE in Milwaukee, Wisconsin and The School Improvement Program in Cincinnati, Ohio are examples of multi-year efforts to institutionalize strategies that can sustain improved student performance. As essential as outstanding individual teachers and classrooms are to assisting

at-risk students, effective schools are needed to maintain effects from one class to another. The effective schools movement should not be considered as another "fad" in American Education.

Significant Parent and Community Involvement

This topic has been addressed in earlier discussions, but its importance deserves specific attention. Educated, middle-class parents typically insist that schools provide attention to the learning needs of their children. Further, these parents often contribute to their children's academic experiences. Schools that serve poor and minority students need to augment home resources. Lending arrangements for dictionaries, encyclopedias, educational games, literature, and the more inexpensive computers need to be established. The Houston Independent School District has launched such a program.

Since schools may not be able to provide these opportunities with their funds, it is essential to develop partnerships with community organizations and businesses interested in school improvement.

Dorothy Rich, Executive Director, The Home and School Institute, is an outstanding resource for assisting schools with developing better relationships between families and the schools. In spite of the frustrations that both school staffs and parents may experience in their efforts to understand and accomodate each other, the home/school connection must be strengthened.

INTERVENTIONS FOR AT-RISK ADOLESCENTS

Attendance Strategies

During the early 1970s a number of urban school districts in the country developed multi-year programs to address junior and senior high school attendance. These efforts, funded by the U.S. Office of Education, utilized a variety of successful strategies for increasing school attendance. Subject area teachers, counselors and principals alternated as home visitors to homes where there were chronic attendance problems. Automated home calling services were installed and found to be effective. In spite of the fact that some of these strategies were discontinued after the three to five year period of federal funding, a core of them still remain.

A report of Project STAY, the effort developed in the St. Louis Public Schools, indicated that the personal contact of professionals with families was the most effective strategy. The second was the use of a number of incentives offered directly to groups and individual students. Currently operating school improvement programs are using a wide variety of incentives. Among these are:

- outings recommended by the students;
- redeemable certificates (fast-food vouchers, free movie tickets, T-shirts, school supplies, school parties, athletic events, etc.);
- monetary payments;
- free periods;
- short and long-term attendance certificates;
- group recognition;
- jobs in the school.

Obviously, all approaches to providing incentives to junior and senior high school students have not been equally powerful. Staffs who have designed these efforts recommend developing a list of "neat" ideas with the students and the use of a "trial and error" approach for testing them. One district reported a 30% increase in attendance during one semester of pairing good and poor attending students as "partners." The good attending partner used various forms of peer pressure with their "charges."

District officials who have launched attendance incentive efforts report that the traditional attitudes of school staffs about "attending school for its own value", presented obstacles to intervention. It seems clear that the existence of the value, or its lack, is at the very core of the problem. The quality of life in classrooms after youngsters are in school is the ultimate challenge for educators. John Goodlad and Theodore Sizer have characterized the paucity of junior and senior high school class environments. In the context of dull, uninteresting, anti-learning environments, attendance incentives will not have lasting power.

Alternative Administrative/Organizational/Instructional Arrangements

Restructuring in the early years of schooling may be beneficial for at-risk students. In the junior and senior high schools it may be imperative. The Wisconsin Research Center at the University of Wisconsin worked with a number of high schools throughout the country to experiment with variations of administrative arrangements in attempts to produce higher student performance. Teacher teaming to address a group of students was at the core of the effort. Further, the instructional objectives generated across subject areas proved to be beneficial, along with integrating vocational education experiences with core subjects. Alternative schools, "houses of students" within schools, and smaller schools have been recommended for students who do not benefit from the typical set of 40-50 minute periods with six different teachers. There are older students whose emotional and academic problems may be alleviated by core-subject arrangements with fewer teachers.

Cooperative education which links school with part-time employment is another option that may reinforce school attendance and better performance for students. The hours of school and work are arranged flexibly so that students can meet both sets of obligations. At the same time, the financial rewards help to deter students from leaving school because of financial difficulties in their homes.

Vocational education should not be viewed as a holding place for low performing students; nor should it be considered as an alternative to academic education.

Attempts to restructure course offerings for at-risk students should involve opportunities for both aspects of education that are designed to increase students' options for post-high school decision making.

A number of the approaches that were discussed for accelerating the performance of younger children are as applicable for adolescents. Students who are very far below expected performance levels in junior and senior high schools also benefit and have shown dramatic results from computer assisted instruction, cooperative learning arrangements, and summer programs that offer opportunities to move ahead, not only for making up courses failed.

It seems clear that the delivery of instruction to adolescent at-risk students requires alternatives and flexible offerings. It may also require different staff selection policies. Teachers who are particularly concerned with the educational and personal needs of these students are more likely to be successful working with them.

Some junior and senior high schools have experimented with groups of teachers who are instructing the same cohort of students, also serving as advisors to them. The teachers meet regularly to review progress of students, share information that may enlighten each others' perceptions and plan instructional approaches that will reinforce learning in each of the students' courses. Reports of student progress are prepared jointly as are parent conferences. The effect on both students and parents has been positive as they perceive that there is more concern and attention being demonstrated.

Instructional Strategies

Both Goodlad and Sizer report that little attention is given to pedagogy and instructional approaches in secondary schools. The same texts and content outlines are used for all students with little regard for differences within "tracks." If low performing students demonstrate acceptable behavioral traits, teachers often tend to expect little in the way of academic performance. The "watered-down" content serves as another trap that depresses academic learning. While there are some secondary schools that are attempting to implement effective school approaches (based on research conducted in elementary schools),

few are addressing effective instructional practices from the literature which may be more applicable. In 1980-81, Anthony Petrowsky, University of Pittsburg, worked with ninth grade English teachers to use several "themes" for instruction in reading and writing that would stimulate students' increased knowledge of the world. Several of the themes were The World of Work, with literary selections taken from political science and current periodicals addressing controversial issues; The Self, with writings from psychological and health literature; and The Environment, with selections from science and historical literature. Classes were located in inner-city Pittsburg. Petrowsky reported increased class attendance, improved cooperation and behavior, and increased quantity of reading, as well as the quality of written products. There have been any number of experiments of this nature.

This example is given here to emphasize that the basic skills needs of adolescent students cannot be isolated from the need to ensure that they become more knowledgable about the world.

Mortimer Adler proposes a core curriculum of the classics and Marva Collins, who operates a private school for inner city youngsters, demonstrates this curricular approach with some success. Whether or not this is a viable approach, it seems clear that more mathematics, science, history, and literature must become a part of the repertoires of students, even if they have had histories of low performance. One of the challenges that secondary schools have not met universally is to provide expanded and enriched course offerings while simultaneously working to accelerate basic skills attainment.

Collaborations with Families, Youth Service Providers and Business

The problems of youth enumerated in this paper are overwhelming. The schools have traditionally attempted to both instruct and meet many of the social and health needs of students. From the evidence given, it is not a task that schools can address without assistance. In most large cities and suburban communities there are 30-40 different agencies attempting to address the array of problems of youth. Schools have had difficulty coordinating and collaborating with these agencies. There are more promising practices in place in this regard in recent years, but they fall short of their potential.

Schools have to be clear about what activities and with whom collaboration is most beneficial. It may be necessary that a district staff person be assigned full time to develop these opportunities.

In recent years businesses have demonstrated their interest and concern to help the schools serving at-risk student populations. Businesses might provide personnel and technical resources to schools as well as part-time jobs for at-risk students.

It appears easier for schools to communicate with families of younger children than with students in secondary schools. Each group blames the other for lack of support and responsibility. There needs to be an end to this "stand-off" and the appropriate assumption of responsibilities and action by both parents and teachers of adolescents. It is possible that cross-age school-family conferences may help. Such an endeavor will require different arrangements and more coordination across school levels, but if the elementary schools are more successful with arranging family conferences, then it might be beneficial that they be joined by the secondary schools.

The shared responsibilities are presented quite cogently in the Levin document (pgs. 32-34) referenced several times in this paper, and no attempt will be made to repeat them here. Suffice it to say that the problems of at-risk youth are staggering in number and magnitude. The potential resource that the numbers of these young people represent are equally rich. Schools, students, parents, state government, colleges and universities, businesses, youth service providers, and the federal government must all consider an expansion and extension of their roles to stem the tide of losing one, if not two, generations of potentially productive Americans.

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